FOURTH MIDTERM EXAM

EC26102: MONEY, BANKING AND FINANCIAL MARKETS

APRIL 14, 2004

This exam has 20 questions on seven pages. Before you begin, please check to make sure that your copy has all 20 questions and all seven pages.

All questions will receive equal weight in determining your exam score.

Please answer all questions on the answer sheet provided.

1. In the US economy, interest rates tend to rise during economic expansions. The loanable funds framework can explain this fact if, during expansions:

A) The shift in the supply curve for loanable funds brought about by an increase in the profitability of investment opportunities is more important than the shift in the demand curve for loanable funds brought about by an increase in wealth.
B) The shift in the supply curve for loanable funds brought about by an increase in wealth is more important than the shift in the demand curve for loanable funds brought about by an increase in the profitability of investment opportunities.
C) The shift in the demand curve for loanable funds brought about by an increase in the profitability of investment opportunities is more important than the shift in the supply curve for loanable funds brought about by an increase in wealth.
D) The shift in the demand curve for loanable funds brought about by an increase in wealth is more important than the shift in the supply curve for loanable funds brought about by an increase in the profitability of investment opportunities.
E) None of the above.

2. The concept of default risk explains why:

A) The risk premium on corporate versus US government bonds tends to widen during economic recessions and depressions.
B) The risk premium on corporate versus US government bonds tends to narrow during economic recessions and depressions.
C) None of the above.

3. According to the loanable funds framework, a bond that is less liquid should have an interest rate that is:

A) Higher than the interest rate on a bond that is more liquid.
B) Lower than the interest rate on a bond that is less liquid.
C) None of the above.

4. Consider three bonds with the same term to maturity: a US Treasury bond, a corporate bond rated Aaa by Moody's, and a corporate bond rated Caa by Moody's. Based on considerations of default risk alone:

A) The Caa corporate bond ought to have a lower interest rate than the Aaa corporate bond; and the Aaa corporate bond ought to have a lower interest rate than the US Treasury bond.
B) The Aaa corporate bond ought to have a lower interest rate than the Caa corporate bond; and the Caa corporate bond ought to have a lower interest rate than the US Treasury bond.
C) The Caa corporate bond ought to have a higher interest rate than the Aaa corporate bond; and the Aaa corporate bond ought to have a higher interest rate than the US Treasury bond.
D) The Aaa corporate bond ought to have a higher interest rate than the Caa corporate bond; and the Caa corporate bond ought to higher interest rate than the US Treasury bond.
E) None of the above.

5. Based on considerations of default risk and liquidity alone, the interest rate on municipal bonds should be:

A) Higher than the interest rate on US government bonds.
B) Lower than the interest rate on US government bonds.
C) None of the above.

6. At 8:30am on Friday, April 2, the monthly payroll employment report showed that 308,000 new jobs were created in the US during the preceding month of March. This number was much higher than most bond traders expected and was widely interpreted as evidence that the US economy was entering into a new phase of economic expansion. Consistent with our analysis of "interest rates and the business cycle," from class, the prices of US Treasury notes and bonds:

A) Fell sharply during the bond trading session on Friday, April 2.
B) Rose sharply during the bond trading session on Friday, April 2.

7. Which of the following theories of the term structure of interest rates assumes that investors regard bonds of different maturities as perfect substitutes?

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

8. Which of the following theories of the term structure of interest rates assumes that investors regard bonds of different maturities as not substitutes at all?

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

9. Which of the following theories of the term structure of interest rates can explain why most of the time, the yield curve slopes up?

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

10. Which of the following theories of the term structure of interest rates implies that interest rates on bonds of different maturities will display no tendency to move together over time?

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

11. "The interest rate on a long-term bond equals the average of the short-term interest rates that are expected to prevail over the lifetime of that long-term bond" is an implication of

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

12. "The interest rate on a long-term bond equals the average of the short-term interest rates that are expected to prevail over the lifetime of that long-term bond plus an additional liquidity (or term) premium" is an implication of

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

13. According to segmented markets theory, why might the yield curve slope up?

A) Because short-term bonds are more liquid than long-term bonds.
B) Because investors want to avoid the risk associated with the possibility that they might suffer capital losses if they have to sell a long-term bond before maturity.
C) Because short-term interest rates are expected to rise.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

14. Suppose that short-term interest rates are expected to rise slightly and that investors prefer short-term bonds to long-term bonds. Then which of the following theories implies that the yield curve will slope down?

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

15. Suppose that short-term interest rates are expected to rise sharply and that investors prefer short-term bonds to long-term bonds. Then which of the following theories implies that the yield curve will slope down?

A) Preferred habitat theory.
B) Segmented markets theory.
C) The expectations hypothesis.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

16. Consider a group of investors who want to lend money out in financial markets for a two-year period and who must therefore choose between one of the following two strategies. Strategy 1: Buy a one-year bond today and when it matures, buy another one-year bond. Strategy 2: Buy a two-year bond today and hold it to maturity. Suppose, too, that the expected return on strategy 1 is higher than the expected return on strategy 2. If these investors behave according to the assumptions of the expectations hypothesis, they will:

A) All follow strategy 1 by buying one-year bonds.
B) All follow strategy 2 by buying two-year bonds.
C) Follow either strategy 1 by buying one-year bonds or strategy 2 by buying two-year bonds, depending on whether they prefer one-year bonds or two-year bonds and paying no attention to differences in expected returns.
D) None of the above.

17. In the example from question 16 above, where investors behave according to the assumptions of the expectations hypothesis and where the expected return on strategy 1 is higher than the expected return on strategy 2, their behavior will necessarily:

A) Cause interest rates on one-year bonds to fall and interest rates on two-year bonds to fall until the expected returns on the two strategies are equal.
B) Cause interest rates on one-year bonds to fall and interest rates on two-year bonds to rise until the expected returns on the two strategies are equal.
C) Cause interest rates on one-year bonds to rise and interest rates on two-year bonds to fall until the expected returns on the two strategies are equal.
D) Cause interest rates on one-year bonds to rise and interest rates on two-year bonds to rise until the expected returns on the two strategies are equal.
E) None of the above.

18. Now consider the same example as in question 16 above, where the expected return on strategy 1 is higher than the expected return on strategy 2, but suppose instead that investors behave according to the assumptions of segmented markets theory. In this case, investors' behavior will necessarily:

A) Cause interest rates on one-year bonds to fall and interest rates on two-year bonds to fall until the expected returns on the two strategies are approximately equal.
B) Cause interest rates on one-year bonds to fall and interest rates on two-year bonds to rise until the expected returns on the two strategies are approximately equal.
C) Cause interest rates on one-year bonds to rise and interest rates on two-year bonds to fall until the expected returns on the two strategies are approximately equal.
D) Cause interest rates on one-year bonds to rise and interest rates on two-year bonds to rise until the expected returns on the two strategies are approximately equal.
E) None of the above.

19. Let i_t denote today's interest rate on one-year bonds, let i^e_{t+1} denote the interest rate on one-year bonds that is expected to prevail one year from now, let i_{2t} denote today's interest rate on two-year bonds, and let l_{2t} denote the liquidity (or term) premium on two-year bonds. Now consider the formula

$$i_{2t} = \frac{i_t + i^e_{t+1}}{2}.$$

This formula is the one implied by:

A) Preferred habitat theory.
B) The expectations hypothesis.
C) Segmented markets theory.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.

20. Now change the formula from question 19 above so that instead it reads

$$i_{2t} = \frac{i_t + i^e_{t+1}}{2} + l_{2t}.$$

This formula is the one implied by:

A) Preferred habitat theory.
B) The expectations hypothesis.
C) Segmented markets theory.
D) Both (A) and (B) above.
E) Both (A) and (C) above.
F) Both (B) and (C) above.
G) All three, (A), (B), and (C), above.
H) None of the above.